

June 12, 2002

## MODIS sensor Working Group (MsWG) Summary

**Attendance:** Bill Barnes, Bob Barnes, Vincent Chiang, Roger Drake, Bob Evans, Gerhard Meister, Chris Moeller, Vince Salomonson, Gary Toller, Jack Xiong, Eric Vermote, Ed Zalewski, Zhengming Wan, Joe Esposito

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### Scheduled Items

#### Item 1 Terra Status

- BB) The rate of formatter reset events is increasing: 6/10-  $1.4 \times 10^6$ , 6/11-  $2.1 \times 10^6$ . Joe Auchter has a patch that will decrease the error rate by 80%.  $4 \times 10^8$  is the estimated error rate limit at which processing may not keep up. If necessary, PFM can be switched to the Bside formatter.
- RD) The cause of the formatter errors is in the implementation of a clock line. The clocking signal gets reflected causing glitches that cause a counter to malfunction. This produces a reset to clear the counter. The acceleration of the error rate may be due to aging of the components or sensitivity changes due to the supply voltage.

#### Item 2 Aqua Status

- JX) Science Mode, B-side T cold FPA is at 83K  
All TEB Detectors are Operable (see charts included)  
TEB charts (from OBC data) T cold FPA are stable  
MS<sub>2</sub> indicate all detectors are functional  
RVS check using MS<sub>1</sub>/MS<sub>2</sub> ratio is consistent with unity.
- BB) Why are the mirror sides different on PFM and not on FM1?
- RD) The mirror side ratio mixes with other effects.
- JX) The ratio (in the charts) is for dn and is equal to the relative RVS.  
Warm Ecal of the PV detectors shows that those detectors are performing well but cannot do the RSB at the detector level until SD calibrations are done.  
Early RSB Results will be from SD Calibration (06/13/02 and 06/16/02)  
YAW Maneuvers (06/14-15 Closed SDS, 06/25-26 Open SDS). The schedule is driven by another instrument.  
SRCA calibrations will be done during 06/17-19/02.  
The BB is on; therefore we can get b<sub>1</sub> and SNR for TEB.  
MCST will produce images of NADIR door to depict low level of banding for FM1.  
Images of the PFM NADIR door will also be created. (MCST Action)
- RD) SWIR Bands: the news on B6 is bad.  
From dn response to BB there are 11 dead detectors on B6.  
Dead on B6: 1, 2, 3, 5, **6**, 7, 8, **9**, **11**, **15**, and 19 (bold implies new to list)  
D6 and D15 were not previously seen as dead at higher temperature.  
For B5, D1 is dead (as before) and B7 has no dead detectors.

## ***Around the Table***

**Participant:** Roger Drake – Ratio data MCST has given us shows that FM1 RVS for MS<sub>1</sub> and MS<sub>2</sub> in pre-launch is very similar.

There is 40<sup>+</sup> mW of CFPA heater power margin on Aqua (this is equivalent to 7K below the 83K control point).

The SDD and SDS checkout were performed yesterday.

**Participant:** Eric Vermote – Can't get information (version) about the B26 correction from the L1B data.

JX) Need to get the LUT table version offline. MCST will implement the B26 correction in the next delivery of L1B.

**Participant:** Chris Moeller - We will be watching B7 closely as it is our backup to B5 for the B26 correction. Should we be thinking about using surrogate radiance when B5 is saturated? Possibly use the B5 Lsat value and raise the poor quality flag for the pixel.

Also setting  $a_0 = 0$  or a constant can make things more stable and thereby enable better crosstalk correction algorithms.

**Participant:** Zhengming Wan – We have planned field campaigns for the end of June and beginning of July. The objectives are to calibrate Terra and to check out Aqua.

**Participant:** Ed Zalewski – We are planning a joint field campaign with ASTER